THAT WHICH IS CLAIMED:

1. A method for the transportation of hydrogen fluoride from a point of origin to a destination point, said method comprising the steps of:

adding at said point of origin a sulfone to the hydrogen fluoride to form a mixture;

thereafter transporting by transportation means for transferring said mixture from said point of origin to said destination point, said transportation means is selected from the group consisting of tank cars, tank trucks and portable vessels.

2. A method as recited in claim 1, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

3. A method as recited in claim 2 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

4. A method as recited in claim 3 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

5. A method as recited in claim 4, further comprising:

returning said sulfone phase to said point of origin to reuse as said sulfone.

6. A method as recited in claim 5 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 100:1.

7. A method for handling and transportation of hydrogen fluoride, said method comprising the step of:

receiving at a destination point a volume of a mixture comprising hydrogen fluoride and sulfone by way of transportation means for transferring said volume from a point of origin to said destination point, said transportation means is selected from the group consisting of tank cars, tank trucks and portable vessels.

8. A method as recited in claim 7, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

9. A method as recited in claim 8, further comprising:

returning said sulfone phase to said point of origin; and

adding at said point of origin said sulfone phase to hydrogen fluoride to form said mixture.

10. A method as recited in claim 9 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range from about 1:100 to about 100:1.

11. A method as recited in claim 10 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

12. A method as recited in claim 11 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

13. A method for handling and transportation of hydrogen fluoride, said method comprising the step of:

transporting by transportation means for transferring a mixture comprising hydrogen fluoride and a sulfone from a point of origin to a destination point, said transportation means is selected from the group consisting of tank cars, tank trucks and portable vessels.

14. A method as recited in claim 13 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 100:1.

15. A method as recited in claim 14, wherein said sulfone is sulfolane.

16. A method for the transportation of hydrogen fluoride from a point of origin to a destination point, said method comprising the steps of:

adding at said point of origin a sulfone to the hydrogen fluoride to form a mixture; and

thereafter transporting said mixture by transportation means for transferring a discrete volume of said mixture from said point of origin to said destination point.

17. A method as recited in claim 16 wherein said transportation means comprises tank cars, tank trucks, and portable vessels including tanks, drums, barrels and bottles.

18. A method as recited in claim 16 wherein said transportation means is a tank car.

19. A method as recited in claim 16 wherein said transportation means is a tank truck.

20. A method as recited in claim 16 wherein said transportation means is a portable vessel.

21. A method as recited in claim 16, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

22. A method as recited in claim 21, further comprising:

returning said sulfone phase to said point of origin to reuse as said sulfone.

23. A method as recited in claim 22 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 about 100:1.

24. A method as recited in claim 23 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

25. A method as recited in claim 24 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

26. A method as recited in claim 17, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

27. A method as recited in claim 26, further comprising:

returning said sulfone phase to said point of origin to reuse as said sulfone.

28. A method as recited in claim 27 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 about 100:1.

29. A method as recited in claim 28 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

30. A method as recited in claim 29 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

31. A method as recited in claim 18, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

32. A method as recited in claim 31, further comprising:

returning said sulfone phase to said point of origin to reuse as said sulfone.

33. A method as recited in claim 32 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 about 100:1.

34. A method as recited in claim 33 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

35. A method as recited in claim 34 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

36. A method as recited in claim 19, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

37. A method as recited in claim 36, further comprising:

returning said sulfone phase to said point of origin to reuse as said sulfone.

38. A method as recited in claim 37 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 about 100:1.

39. A method as recited in claim 38 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

40. A method as recited in claim 39 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

41. A method as recited in claim 20, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

42. A method as recited in claim 41, further comprising:

returning said sulfone phase to said point of origin to reuse as said sulfone.

43. A method as recited in claim 42 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 about 100:1.

44. A method as recited in claim 43 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

45. A method as recited in claim 44 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

46. A method for handling and transportation of hydrogen fluoride, said method comprising the step of:

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receiving at a destination point a discrete volume of a mixture comprising hydrogen fluoride and sulfone by way of transportation means for transferring said discrete volume from a point of origin to said destination point.

47. A method as recited in claim 46 wherein said transportation means includes tank cars, tank trucks, and portable vessels including tanks, drums, barrels and bottles.

48. A method as recited in claim 46 wherein said transportation means is a tank car.

49. A method as recited in claim 56 wherein said transportation means is a tank truck.

50. A method as recited in claim 56 wherein said transportation means is a portable vessel.

51. A method as recited in claim 46, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

52. A method as recited in claim 51 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 100:1.

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53. A method as recited in claim 52 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

54. A method as recited in claim 53 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

55. A method as recited in claim 48, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

56. A method as recited in claim 55 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 100:1.

57. A method as recited in claim 56 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

58. A method as recited in claim 57 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

59. A method as recited in claim 49, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

60. A method as recited in claim 59 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 100:1.

61. A method as recited in claim 60 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

62. A method as recited in claim 61 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

63. A method as recited in claim 50, further comprising:

separating at said destination point said mixture into a sulfone phase and a hydrogen fluoride phase.

64. A method as recited in claim 63 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 100:1.

65. A method as recited in claim 64 wherein said sulfone phase comprises sulfone and contains less than about 20 weight percent hydrogen fluoride.

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66. A method as recited in claim 65 wherein said hydrogen fluoride phase comprises hydrogen fluoride and contains a weight ratio of sulfone to hydrogen fluoride of less than about 2:100.

67. A method for handling and transportation of hydrogen fluoride, said method comprising the step of:

transporting a mixture comprising hydrogen fluoride and sulfone by transportation means for transferring a discrete volume of said mixture comprising hydrogen fluoride and sulfone from the point of origin to a destination point.

68. A method as recited in claim 67 wherein said transportation means includes tank cars, tank trucks, and portable vessels including tanks, drums, barrels and bottles.

69. A method as recited in claim 67 wherein said transportation means is a tank car.

70. A method as recited in claim 67 wherein said transportation means is a tank truck.

71. A method as recited in claim 67 wherein said transportation means is a portable vessel.

72. A method as recited in claim 67 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 1:100.

73. A method as recited in claim 72 wherein said sulfone is sulfolane.

74. A method as recited in claim 68 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 1:100.

75. A method as recited in claim 74 wherein said sulfone is sulfolane.

76. A method as recited in claim 69 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 1:100.

77. A method as recited in claim 76 wherein said sulfone is sulfolane.

78. A method as recited in claim 70 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 1:100.

79. A method as recited in claim 78 wherein said sulfone is sulfolane.

80. A method as recited in claim 71 wherein said mixture includes a weight ratio of sulfone to hydrogen fluoride in the range of from about 1:100 to about 1:100.

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81. A method as recited in claim 80 wherein said sulfone is sulfolane.

82. A closed volume containing a liquid mixture comprising hydrogen fluoride and sulfone wherein said liquid mixture fills less than the entire volume of said closed volume to form a vapor space therein and wherein the percent partial pressure of hydrogen fluoride in said vapor space is less than 100 molar percent.

83. A closed volume as recited in claim 82 wherein the weight ratio of sulfone to hydrogen fluoride in said liquid mixture is in the range of from about 1:100 to about 100:1.

84. A closed volume as recited in claim 83 wherein the temperature of the liquid mixture is in the range of from about -10°F to about 130°F.

85. A closed volume as recited in claim 84 wherein the pressure within said vapor space is less than about 100 psig.

86. A closed volume as recited in claim 85 wherein the sulfone of said liquid mixture is sulfolane.

87. A closed volume containing a liquid mixture comprising hydrogen fluoride and sulfone wherein said liquid mixture fills less than the entire volume of said closed volume to form a vapor space therein and wherein the

partial pressure of hydrogen fluoride in said vapor space is less than the vapor pressure of hydrogen fluoride.

88. A closed volume as recited in claim 87 wherein the weight ratio of sulfone to hydrogen fluoride in said liquid mixture is in the range of from about 1:100 to about 100:1.

89. A closed volume as recited in claim 88 wherein the temperature of the liquid mixture is in the range of from about -10°F to about 130°F.

90. A closed volume as recited in claim 89 wherein the pressure within said vapor space is less than about 100 psig.

91. A closed volume as recited in claim 90 wherein the sulfone of said liquid mixture is sulfolane.